cdfa CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE
Karen Ross, Secretary

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Dear Dr. Alemi:

Thank you again for meeting with us to discuss the Department of Water Resources' (DWR) SBx7-7 "Report to the Legislature on Quantifying the Efficiency of Agricultural Water Use". At our meeting, the California Department of Food and Agriculture (CDFA) made several recommendations as to how to strengthen the report. We have provided edits to the document (see attached), but would also like share some general comments.

First, CDFA supports DWR's suggestion that a more robust discussion of "What is water efficiency?" is necessary. This will provide a framework for the discussion and the rest of the report. Without a full discussion of this issue, it is difficult to fully assess the rest of the report.

In addition, we strongly urge DWR to provide an executive summary that states the uses, limitations and spatial scale of the recommendations. This summary should provide the Legislature a road map to the analysis that follows, as well as a clear statement of DWR's recommended methodology, timing and costs. It should also clearly indicate the differences between methodologies and indicators, the purpose of each and the different uses for which they are intended.

The report should also provide a context for the place of agriculture within California. As per our discussion, CDFA is providing language to DWR that provides this context. This will strengthen the report by enhancing the Legislature's knowledge and understanding of the importance of farming and ranching in California and the benefits it provides. This language is attached.

CDFA is concerned that the current discussion of economic productivity is beyond the scope of the legislature's mandate to look at water use efficiency. Crop production values, or indicators, cannot be used to measure water use efficiency. Crop production is influenced by many factors, some of which can be highly volatile, including: fertilizers, soil and water quality, weather, varieties in crops grown, invasive and other pest management, commodity pricing, and purpose of crop. While some of the limitations of the uses of this data are discussed in the report, CDFA does not feel that the discussion fully captures this issue. For instance, some crops are grown as cover crop for soil health and/or for the purpose of removing excess nutrients from the soil, which has benefits to water and soil quality, but is not intended to provide an economic benefit to the farmer. Crop production value would indicate a low value for this crop, leading one to the support irrigation infrastructure and water delivery systems for certain crops.

However, CDFA does agree that there is value in discussing economic productivity on a broad scale as it demonstrates that California's farmers and ranchers have more than doubled productivity for each acre-foot of water applied. However, the "indicator" of economic productivity of agriculture at field level is not robust enough to provide policy or economic guidance. It is our understanding from conversations with DWR staff that this is not the intention of DWR staff, thus DWR should clearly state that in its executive summary and in the body of the report and all references that indicate otherwise should be deleted (for instance, see pp. 14 and 24). In addition, CDFA recommends that DWR reorganize the report and place indicators in a different section than methodologies, clearly demonstrating that they should not be used to regulate or legislate on agricultural water use.

In addition, CDFA does not support government dictating cropping patterns. As outlined above, farmers choose cropping patterns based on a number of factors and maintaining flexibility to respond to market forces is critical to farmers' and ranchers' ability to provide a diverse array of crops and animal products that are necessary to feed a population that is expanding by 220,000 mouths per day. In addition, any analysis of crop production values must look at the ecosystem benefits that farming and ranching systems provide, from increased habitat to grassland health to water purification. The current report does not, and is not intended to, contain such an analysis. Thus, CDFA recommends that the discussion of productivity indicators be placed in an appendix or in a separate section from the discussion of methodologies for estimating water use efficiency.

CDFA does recommend that DWR include a sidebar that discusses the agricultural water stewardship of California's farming and ranching system and is attaching language for your consideration. This language is a crystallization of the recent report from the California Roundtable for Water and Food Supply and the California Agricultural Water Stewardship Initiative. This will provide the Legislature with critical information on our agricultural systems, their critical role in our ecosystems and the health of our resources.

CDFA also recommends a table laying out the different methodologies, the manner in which they will be phased-in, data needs for each phase and costs of each phase. While this information is within the report, the reader is required to tease it out. CDFA believes that a reorganization of the report can also facilitate an easier understanding of DWR's recommended steps. As we have discussed this with you in detail, we will not belabor it herein.

Thank you for the opportunity to comment on the draft and we look forward to seeing the next iteration of the report.

Sincerely,

Sandra Schubert
Undersecretary

Attachments

California farmers and ranchers – an economic and nutritional powerhouse

Farming is the backbone of our economy and our daily lives, providing healthy fruits and vegetables, nuts, dairy, grains, lean meats and dairy protein that we eat and drink, cotton and wool for the clothes we wear, the flowers and trees that brighten our days, and energy to power our lives. California produces more than 400 crops on 81,700 farms employing 800,000 people in all stages of the farming and ranching economy – from the field to our tables. California farmers and ranchers serve diverse customer needs – from small farmers producing for local markets to robust international trade.

At a time when many sectors of the economy are faltering, agriculture is strong. California agriculture is a $37.5 billion annual industry generating 12 percent of total U.S. agricultural revenue. In addition, California exports 23 percent of the products grown and harvested in the state, making it a trading powerhouse. California agricultural trade is vital to the nation, comprising 12 percent of the nation's agricultural trade and producing millions of jobs on and off the farm. The top ten crops for export are almonds, rice, wine, pistachios, walnuts dairy, table grapes, processing tomatoes, oranges, lettuce.

California, one of only five Mediterranean growing regions in the world, is able to provide an abundance of crops – over half the nation's fruits, nuts and vegetables alone. Today, with a renewed interest in nutrition and its role in preventing chronic disease, California's farms are even more important. Numerous studies show that eating healthy foods – fruits, vegetables and nuts – decrease rates of chronic diseases, providing a more vital workforce and saving funds that would otherwise be spent on health care. This resurgence is building bridges between our food policy network, our rural communities and food deserts, between farms and urban environments, and between nutritionists and farmers, allowing us to achieve our goal of having California-grown healthy foods for all Californians and many Americans in their communities and homes.

Our farmers and ranchers protect our natural resources while dramatically increasing their productivity to feed a global population projected to climb to more than nine billion people within the next few decades. They are constantly innovating, readily adopting the latest technologies, improving efficiencies and reducing costs of production. Utilizing federal conservation funding, in fiscal year 2009-2010 alone, California farmers: reduced nitrous oxide emissions in the San Joaquin Valley by 5.5 tons, equal to taking 408,000 cars off the road; paid for 71 miles of hedgerows, providing habitat for 1,500 species of pollinators and wildlife; and improved irrigation efficiency by 25 percent on over 200 billion gallons of water, enough to fill over 1 million swimming pools.

Our farmers and ranchers grow crops that feed, clothe and power California, the nation and the world, leading the world in sustainability and innovation.

California Agricultural Water Stewardship - A Systems Approach

California is facing significant challenges around the management of water for all users. For agricultural water use, understanding water systems means thinking about the use of water in agriculture and in the larger watershed. Agricultural water stewardship can be thought of as:

> *The responsible use and management of water that optimizes agricultural water use while addressing the co-benefits of water or food production, the environment and human health.*

This definition has been developed by a diverse group of California stakeholders, including policy, environmental and agricultural leaders, affiliated with the California Roundtable for Food and Water Supply, who understand that agricultural water management decisions need to consider the broader ecological, social and economic context.

Thinking about water in a systems approach recognizes that simply reducing applied agricultural water may not necessarily result in a net benefit at the farm or watershed levels, and that effective stewardship may provide multiple ecosystem services. While growers are continually making improvements in their operations to ensure profitability and the resource base – they are doing so in a system – and gains in overall sustainability may mean the increased use of applied water or other input.

As an example, many growers in California use cover crops to provide nitrogen and improve soil quality. Cover crops may in fact require additional applied water, depending on the crop, rainfall, planting date and other factors. However the overall resource base may be improved, by reducing applied synthetic nitrogen and improved soil quality.

Making smart water use decisions while minimizing environmental impacts and balancing all the trade-offs will help ensure the long-term viability of agricultural production for California.

For more information see http://agwaterstewards.org/